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Rocket Man -- KPMG Peat Marwick 's Allan Frank is bringing virtual reality down to Earth

By Bruce Caldwell

Allan Frank has a tendency to talk a mile a minute, zigzagging between earthy exclamations and lofty abstractions. The first impression he gives is of an unstoppable force trying to go off in all directions at once.

"Sometimes, we have to rein him in when he gets philosophical about the power of technology and connectivity," admits Ted Fernandez, national managing partner for strategic services consulting at **KPMG** Peat Marwick LLP in New York. But when it comes to the application of new information technologies, Fernandez says, "Boom! It's like a rocket launch."

Launch is the right word. Frank, named on Oct. 20 as the first chief technology officer at **KPMG**, where he also serves on the board of directors and leads the enabling technologies consulting practice, is turning the entire firm into a "living lab." One of the lab's first experiments will be to test virtual reality for storing and accessing **KPMG** data.

It's a journey Frank started in 1989 when **KPMG** collaborated with Thinking Machines, Apple Computer, and Dow Jones on **Wais** (Wide Area Information Server), the natural language search-and-retrieval software. "A very interesting 'ah-ha!' occurred," says Frank. He recognized that every individual in **KPMG** is the firm, and if all their knowledge could be accessible in one place and everyone could go in and search, "that would be goodness," he notes.

The problem was how to navigate through that knowledge. Virtual reality could help by providing visual and other sensory guides to data, but an impossible amount of bandwidth would be needed to deliver virtual reality to everyone in **KPMG**, which employs 72,000 professionals in 1,100 offices across 134 countries.

Most professional services firms have relied on Lotus Notes for knowledge sharing, but two years ago, Frank took **KPMG** down a different path. FirstClass, electronic-messaging and conferencing software from SoftArc Inc. in Markham, Ontario, was enhanced with search engines to open all the electronic databases at **KPMG** to the firm's professionals.

Corporate data now is accessible to more than 15,000 **KPMG** professionals, and the need for the virtual reality navigational aid envisioned by Frank is stronger than ever. In 1993, **KPMG** restructured its tax, accounting, and consulting practices into multidisciplinary teams focused on specific industries on a global basis, adding to the demand for instant data.

This fall, Frank is putting together a skunk works at his offices in Radnor, Pa., to build a prototype of Knowledge Master, the virtual reality environment where a handful of specialists will support **KPMG**'s professionals.

To build the prototype, **KPMG** is using WorldUp and WorldToolKit from Sense8 Corp. in Mill Valley, Calif. Both products enable the creation of artificial environments for simulation or virtual reality purposes, explains

Stuart Alexander, East Coast sales manager for Sense8. WorldUp, released for general availability in late October, lets nonprogrammers point and click for instant changes in the artificial environment.

How will it work? The search-and-retrieval specialist will be fully immersed in virtual reality, Frank explains. E-mail queries, even videoconferencing screens, will pop up in virtual space to connect the specialist with **KPMG's** professionals. The specialist then can unleash virtual intelligent agents to help and search directly through sensory cues such as color and shape, perhaps even musical tones, associated with data.

As excited as Frank is about the project, he has his worries. "What happens if you exist in virtual reality for a long time?" he asks. "I can see Knowledge Masters becoming the 21st century's drones." There are other more technical concerns: Should data be organized hierarchically and visually represented by a tree, or would time lines, viewed as long, curving, player-piano rolls, serve the purpose better?

"We think of the world [today] in terms of nested folders," says Frank. "I'm trying to throw away the old paradigm." In the end, he says, accessing information through associations, as with hypertext links between Internet sites, is likely to become widely accepted as the best means to cut through the complexity of content stored online by corporations.

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